

**R****F**

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**ORANGE COUNTY AMATEUR RADIO CLUB**  
VOL. XXXV111 NO.5 P.O. BOX 3454, TUSTIN, CA. 91781 MAY 1997

**The Prez Sez:**

Have you heard of the phenomenon called "skin effect". Does this have to do with the effects of RF on humans?

Not at all. The resistance of a conductor to ac is different than its value for dc. A consequence of Maxwell's equations is that thick, near-perfect conductors (Such as metals) conduct ac only to a certain depth that is proportional to the wavelength of the signal. This decreases the effective cross section of the conductor at high frequencies, and thus increases its resistance.

This resistance increase, called skin effect, is insignificant at low (audio) frequencies, but beginning around 1 MHz (depending on the size of the conductor) it is so pronounced that practically all the current flows in a very thin layer near the conductor's surface. For this reason, at RF a hollow tube and a solid tube of the same diameter and made of the same metal will have the same resistance. The depth of this skin layer decreases by a factor of 10 for every 100-fold increase in frequency.

**Program for May**

Don't forget the "SHOW AND TELL NIGHT" Bring any of those projects that you built right after you (or before) you got that coveted ham ticket. Don't be shy.

**Ramblings:**

Any one interested in GPS-APRS Packet? A new program has been uploaded to the internet. This will produce good street maps for GPS. Check with Tom(WA6PFA) or Bruce(KC6DLA) for more info.

## 1997 Board of Directors

President.....	Frank Smith	WA6VKZ	838-3180
Vice President.....	Art Sheldon	AD6B	997-3735
Secretary.....	Jim Winn	KE6UCH	731-2732
Treasurer.....	Ken Konechy	W6HHC	744-0217
Activities.....	Art Dillon	KE6WOX	997-2078
Membership.....	Bob Buss	KD6BWH	534-2995
Public Relations.....	Larry Beilin	K6VDP	557-7217
Tech Committee.....	Larry Hoffman	K6LDC	636-4345
Member at Large.....	Bob Eckweiler	AF6C	639-5074
Member at Large.....	Bob Tegel	KD6XO	531-0926

## CLUB APPOINTMENTS

Club Historian.....	Bob Evans	WB6IXN	543-9111
W6ZE Trustee.....	Bob Eckweiler	AF6C	639-5074
RF Editor.....	Bud Barkhurst	WA6VPP	774-6361
Refreshments			

## DUES

Regular Members	\$15.00	Additional Members	\$7.50 each
Teenage Members	\$ 6.00	Optional Club Badge	\$5.00 each

Dues for new members are pro-rated quarterly from January 1st each year. Family members must reside at the address of a regular member. Only one RF is sent per household.

## Minutes of the General Meeting 4/18/97

The meeting was called to order by President WA6VKZ at 7:30 PM.

All Board members were present except Bob Tegel KD6XO.

**Activities:** Vice Pres. Art Sheldon AD6B introduced Art Goddard W6XD, speaker for the evening. Art made a slide presentation on DXing in the land of Genghis Kahn (Mongolia). During the WWDX they used the call JT1Z.

**New Business:** Pres. WA6VKZ entertained a motion that the membership chairman KD6BWH send a membership application to all of last year's members who have not yet renewed. Motion was made by K6LDC and AF6C made the second.

**Old Business:** April is the month that a chairman and vice chairman be appointed for field day. Larry Beilen, K6VDP and Larry Hoffman, K6LDC will co-chair.

No communication from the Marine Base has been received yet regarding field day.

Pres. WA6VKZ entertained a motion that the minutes of the general meeting of 3/21/97 be accepted as published. AF6C made the motion, KE6NAH seconded.

Corrections: Will Henderson shall read Will Anderson AA6DD.

**Membership:** Chairman KD6BWH introduced new members KB7NOB and W6KFW and also announced we now have 45 members.

**Treasurer:** Chairman W6HHC reported that \$65.00 in donations was received tonight. \$215.26 has been received in total and we have reached our goal. There are no updates on the board meeting financial statement. If anyone renews their ARRL membership through the club, the club will get a monetary benefit.

**Good of the club (announcements)** There was a discussion about the appearance or lack thereof in the OC register regarding club meetings and related info. Art KE6WOX reminded the membership about the El Mirage Antenna trip the last weekend in April. Program for May will be show and tell night. Bring your project: tables will be set up. Art Goddard W6XD reminded the club of the convention coming up in Riverside, Sept 12-14. If you sign up before the end of May, you get a cut rate and a pin..

Meeting was adjourned at 9:40PM

Respectfully submitted  
Jim Winn KE6UCH, Secretary

## Board meeting of 5/3/97

Meeting was called to order at 8:37am by President Frank Smith, WA6VKZ. All board members were present.

**Old Business:** Chairman KD6BWH is in the process of mailing out membership applications to the members who have not yet renewed. Art, KE6WOX and Larry, K6LDC reported that they were the only participants at the El Mirage antenna trip. They had a great time and made many contacts on HF. Art, AD6B announced that ten people are signed up for show and tell at the next general meeting.

No response has been received regarding the use of the Marine Base for Field Day. Classification for Field Day is 4A. The Band Captains are:

20m/80m	Chris Breller, KJ6ZH
15m	Bob Eckweiler, AF6C
40m/VHF	Larry Beilin, K6VDP
20m/80cw	Bob Chase, N7AZ
10m/Nov	Elmer Thomas, WA6PFA
Satellite	Chris Breller, KJ6ZH
Packet & Solar	Frank Smith, WA6VKZ
Food	Steve Rassmussen, KE6NAH Frank Smith, WA6VKZ Bob Schnabel, KM6TL
Poties	Art Dillon, KE6WOX Larry Hoffman, K6LDC

**Treasurer:** W6HHC reported that we have \$1413.94 in the treasury. We are on target and should end up in the black.

**New Business:** No new business.

**Good of the Club (announcements):** Bob Tegel, KD6XO announced that volunteers will be needed for the California Classic marathon competition in Palos Verdes on August 9th. The volunteers are: PFA, NAH, BWH, ZH, TAM, DLA, VPP, HHC & VKZ.

**Membership:** There are 45 paid members.

**Technical:** No report

Motion to adjourn was made by K6LDC and seconded by KE6NAH. Meeting was adjourned at 9:10 am.

Respectfully submitted  
Jim Winn KE6UCH, Secretary

The Following OCARC members who have Online(E-Mail) addresses:

Phil Andersen	N7PA	phil@blackhawk.usa.com
Howard Atwell	KA6CZI	howard-atwell@fullcoll.edu
Bud Barkhurst	WA6VPP	obarkhurst@aol.com
		BWA6VPP@Juno.com(Free E-Mail)
Bob Buss	KD6BWH	kd6bwh@aol.com
Bob Eckweiler	AF6C	r.eckweiler@genie.com
		c005291@mdcpo04.1b.mdc.com
Loyd Harwood	WB6ULU	lloyd@exo.com/fhrk40a@prodigy
John Meacham	KT6TK	kt6tk@nctcom.com
Jim Roberts	N6XTJ	jr_n6xtj@compuserve.com
Elmer Thomas	WA6PFA	eelmert@aol.com
Frank Smith	WA6VKZ	104675.3022@compuserve.com
Jack Hollander	N6UC	hollander@net999.com
Ken Konechy	W6HHC	73223.1400@compuserve.com
		kkonechy@rnbo.com
Jane Breller	KC6TAM	kc6tam@aol.com
Chris Breller	KJ6ZH	kj6zh@aol.com
Club Web Page	W6ZE	<a href="http://www.geocities.com/athens/2473/">http://www.geocities.com/athens/2473/</a>
Larry Hoffman	K6LDC	K6LDC@earthlink.net
Steve Rasmussen	KE6NAH	ke6nah@moonlink.net
Bob Tegel	KD6XO	kd6xo@aol.com

These addresses will be updated quarterly.

**Point of interest:**

Has anyone checked the club Web Page. [Http://www.geocities.com/athens/2473/](http://www.geocities.com/athens/2473/)

**Golden Rules for Living**

- 1.- If you open, close it.
- 2.- If you turn it on, turn it off.
- 3.- If you unlock it, lock it up.
- 4.- If you break it, admit it.
- 5.- If you can't fix it, call in someone who can.
- 6.- If you borrow it, return it.
- 7.- If you value it, take care of it.
- 8.- If you make a mess, clean it up.
- 9.- If you move it, put it back.
- 10.- If it belongs to someone else, get permission to use it.
- 11.- If you don't know how to operate it, leave it alone.
- 12.- If it's none of your business, don't ask questions.

# A Wireman's Tune-up for Field Day or... WOX and LDC make Some Connections

The last weekend of April was a good one for Art Dillon, KE6WOX and Larry Hoffman, K6LDC as they trekked out to the desert for a little wire antenna tryout.

Preparations for the excursion began in the early days of April when Art and Larry spent an eventful afternoon and evening getting prepared for the upcoming trip. The afternoon started by building three collapsible 25 foot long poles from which the wire antennas would be hung, and alternately the driven element of LDC's Cushcraft A4S with a 40 meter kit would be mounted so that they would have a 40 meter rotatable dipole to try.

Using 1 1/4" EMT telescoping into 1 1/2" EMT about 12 inches and secured by 1/4" bolts going through holes drilled through them, we had all metal masts of about 19 feet tall. These were topped with 5 1/2 feet of 1 1/8" clothes dowel mounted into the top section of each pole. This took much too long to do because these cans of beer kept getting in our path and in order to move them, they had to be emptied. We're certain that all of you fully understand the sacrifice we made. We now had three complete 25 foot masts.

After dinner we took out the tape measure and put the driven element together, and mounted it to a mast. It was quite a struggle to get it up. We finally did, but were reluctant to try and rotate it. It was just too top heavy with tremendous leverage making it hazardous. It was tried once with the element broadside to the east and west. A good signal report from a Texas station was immediately received. Getting the antenna down was almost as much *fun* as getting it up. It measured 33 feet from end to end. Well, it was decided that discretion was the better part of valor, and not particularly wanting a costly disaster it was decided to leave the A4S element home.

When the big day came (Friday the 25th) the two left at the crack of dawn and headed for El Mirage Dry Lake (south of Edwards air base, east of Lancaster and west of Victorville) about 85 total miles. Using a Winnebago motorhome, pulling a Toyota pickup truck all the gear was easily transported to the east end of the dry lake bed.

Important things came first. Art climbed to the top of the motorhome and a telescoping fiber pole (ala Ma Bell) was taped to the ladder and became the center of an "inverted V" cut for 40 meters.

Quickly the rig (LDC's TS-50, Astron power supply and AT-50 tuner) was attached. It loaded beautifully on most bands and the first contact was a Denver station. The inverted V was used on the 80, 40, 20 and 10 meter bands and contacts were made all over the western US. LDC made a contact with ZL1BDG on 20 CW at 0150 UTC.

On Saturday morning the inverted V was taken down and the 25 foot poles were assembled. One was fastened to the ladder of the motorhome, one fastened to the Toyota pickup parked about 100 feet behind the motorhome and another at 90 degrees to the motorhome with a triangular base that WOX was able to bring. It was far enough to enable having an equilateral triangular loop antenna that was a total of 272 feet of wire, fed with RG-8 at the motorhome corner. Plug it in--try it out. It worked on all bands except 17 meters. LDC made his first contact ever on 12 meters, a station in Salt Lake City, Utah.

With the loop, communications were very good. A YL named Ani, ZP5YAL in Paraguay was worked on 20 SSB as well as many stations all over the US and Canada. It was a great day of communicating. 6 meters was tried with a wire ground plane antenna, but to no avail. Two meters was a disaster as the antenna wouldn't load. Later it was discovered that the coax connector had been pulled partially loose behind the rig.

The menu....BBQ'd Chicken, suds, Lasagna, suds, sandwiches, suds, bagels, suds, fruit, suds, and a lot of other goodies. It was rough out there!!!

Suggested by Frank, WA6VKZ, the Prez, "why not do this a couple of times a year." If some of you like the idea, please tell Larry, K6LDC or Art, KE6WOX and they'll try and arrange one for the beginning of October.



NETNEWS  
by WB6IXN

4/2 15m Phone Net - W6ZE/HHC checks in AD6B, WOX, NGO, RND, RE, & AF6C. IXN is vacationing in Garner Valley.

4/2 2m Phone Net - W6ZE/VDP checks in NG7D, VFC, RE, AD6B, BWH, QW, & UBK. BWH airs Newslin #1024, and VFC is mobile, camping in San Clemente.

4/9 15m Phone Net - W6ZE/AF6C checks in NGO, AD6B, IXN, FMX, & HHC. AF6C & OPs discuss the solar flare & possible consequences to communications. HHC is off to Laughlin this weekend, & NGO tells HHC to try machine # 147 on the Boat. AD6B puts in a new shelf fer the rig & discusses the Comet, which is vy bright tonite! AF6C tn timer the volcano article, & IXN tells OPs abt the 2 1/2" snowfall in Garner Valley last Thurs. FMX tells HHC to try the machine by the restroom in Harrah's Casino, & Paul has been enjoying Hale Bopp too!

4/9 2m Phone Net - W6ZE/IXN checks in WOX, VFC, NG7D, AD6B, VDP, BWH, QW, RE, AB6ZF/m, LDC/m, & PKB. QW entertained visitors frm Fla. last week, and Rolf now suffers frm the Two Ts, Tired & Taxes! AD6B tells OPs that Art Goddard will present 'Amateur Radio in the Land of Ghengis Khan' at next Meeting!...Sounds like a goody!! WOX's XYL has Art drying dishes during the 15m Net, so Art joins us on 2m. Between house chores, and the harmonic's twisted ankle, Art manages some 40m contacts! VFC rejuvenates the power supply in the Swan 350, and NG7D works wid Creative Support Systems on his independent living program. John helps VES repair a Lafayette HA-700 tube receiver of the 60s vintage! AD6B trys his hand at photographing Hale Bopp! VDP gives last week's check-ins to IXN, and Larry is abt done wid the 5/8 over 5/8 wave ant. VDP tells WOX that he has a 2 1/2 MH choke fer him. And ZF/m is on his way home frm VEing another test session at the Red Cross. BWH airs Newslin, and we learn that all VEs at a test session are responsible for testing procedures, etc! RE takes medication fer a nagging pain in his right shoulder, and OPs congrat. Alex on his upcoming 63rd wedding anniversary Apr. 14! PKB kicks bk & listens to Net, and LDC/m hears 2 Brazilians, 1 Venezuelan, and Vanuatu Is. on 10m last Sat.! And Larry enjoys the Comet tonite!

4/16 15m Phone Net - W6ZE/AF6C checks in VKZ, AD6B, RND, WOX, IXN, & HHC. VKZ, HHC, & BWH (any others?) work the Baker-to-Vegas Relay. And VKZ asks WOX if one can drive stakes fer an antenna in the Dry Lake Bed. AD6B says 'YES'! AF6C says 'Heavenly Gate' people failed to rendezvous wid Hale-Bopp due to a spaceship malfunction...Seems they won't reach the 'Upper Level' until the Comet's return around 4007! AD6B asks OPs if they noticed the Las Vegas postmark on their 'RFs'! BWH mailed the RFs in Vegas! AD6B, not hearing HHC check in early, thinks that Ken is still in Vegas 'washing dishes'! Art also catches the lunar occultation of the star, Aldebaran! RND says the Las Vegas postmark on his RF is vy faint! And John gets a gud view of Hale-Bopp in Bullhead City last Fri. WOX repairs a 'flopping distributor' in the Volkswagon, and goes to pick up the harmonic by 9:00pm. IXN tells ZE abt new dire predictions fer the Newport-Inglewood fault, and

mentions to AD6B to watch TV news fer other upcoming lunar occultations. IXN tells WOX that he uses a ? mark for REPEAT in CW communications, as mentioned by AD6B. HHC gets home late and checks into net after chow. Ken and Diane enjoyed the Baker-to-Vegas event, and a gud sighting of the Comet! And AF6C questions whether SKN means 'Silent Key Night', or, Straight Key Night...HI!!

4/16 2m Phone Net - W6ZE/IXN checks in VFC, VDP, NG7D, RND, AD6B, ZXI, BWH, UCH, TLR, LDC/m, UBK, QW, JLC, & WOX. Great check-in, OPs! VFC prepares fer the Swapmeet this weekend, and VDP & QW did sum testing on the 5/8 over 5/8 vert. ants. last weekend. And Larry has a rubber mat to trim fer the back of the truck, plus work to finish on the Delta Loop ant. NG7D faces some surgery soon, as John prepares to fulfill his 'independent living' plans. He might be living in Costa Mesa soon! BWH works the Baker-to-Vegas Relay last weekend, and Bob airs Newslne...Seems that the battle to end the CW requirement for VHF operation has moved to the Worldwide Web! RND tells VDP that the Hara Arena is the location of the Flea Market at the Dayton Hamvention. And John hopes that Larry doesn't have the wet, muddy conditions he encountered at the 1994 Hamvention! AD6B works the Marshall Islands on 20m CW on the 15th, & Art announces the Club program for Fri. Meeting to the Net. UCH gets bk frm a business trip to Williamsburg, VA., wid gud WX to boot! KC6TLR, Vince, and W6ZXI, Regg, check in and kick bk to enjoy the Net. LDC/m answers ZE frm the driveway, and tells OPs that he worked Port Huron, MI, using 4 Watts QRP last Sat.! UBK enjoys the warm WX outdoors and works us frm the patio after completing a bike ride earlier! QW makes plans fer a cheap flight to Spokane fer a 10 day business trip planning fer the new QTH. Rolf and VDP tuned the top section of the new vertical ant. fer max. field strength. WOX checks in after arriving home wid the harmonic, and IXN can't get the 220 rig up & going fer a 223.5 MHz radio check. VDP comes to the rescue!

4/23 15m Phone Net - W6ZE/AF6C checks in VKZ, AD6B, RND, IXN, & WOX. VKZ 'flies in' and says, "Busy, Busy, Busy!" Frank hopes that work will lighten soon, and then he 'flies away'! All OPs tn timer AD6B fer Art Goddard's FB program on 'The Land of Ghengis Khan'. Art hears all OPs well tonite, as he contemplates a new shelf and foot switch fer the rig. AF6C says HHC is in Boston this week, and that NGO is undergoing medical tests. RND says IXN is weak at the Qth, and John plans to work sum RS satellites tomorrow eve. WOX may hve to leave Net early if the landline says the harmonic is ready fer pickup. But maybe John's plans fer that 2nd Volkswagon will help remedy the situation!

4/23 2m Phone Net - W6ZE/IXN checks in RND, NG7D, RE, PZF, VFC, TWA, VDP, ZH, AD6B, BWH, WZO, LDC/m, & UCH. ZH 'flies in & flies out'. RND queries Net to discover any interest in another CW net, probably not located in the Novice band this time around! IXN suggests the Calico fault fer RND's FD location. But RND thinks he'll try the San Andreas, maybe arnd the Wrightwood area!! And John plans to get in on the Baker-to-Vegas Challenge Cup Relay next year! NG7D is 'up to his ears' in moving plans. And John might be able to FD wid VES this year. RE says sunspot cycle is improving, but propogation is still poor fer W1AW Bulletins! And Alex will BD on Cinco de Mayo, 87 years



young! PZF just retired fer the 2nd time...Now to get up that antenna!! BWH, AD6B, & IXN all discuss the fate of the dirigible hangers at the Marine Helicopter Station in Santa Ana. BWH airs Newsline, then announces a tri-band antenna, 9 ft. tower, and thrust bearing fer sale. If interested, call Bob, or Richard at 310-888-1140. TWA will send IXN a list of tapes available frm the 'California Gold' programs on TV. VDP says they did a tape on the Hangers in Santa Ana! AD6B is vy knowledgeable abt these Hangers, telling OPs that they hve aluminum corrugated roofs, they're made frm 2.7 million ft. of Oregon Douglas Fir, they're 178 ft. tall, and fog sometimes develops near their ceilings! TWA worked Hawaii on 12m and heard Puerto Rico on 15m, and Charles & the XYL did a bit of gambling in Laughlin last week. And VDP's friend gets Barry at Rockwell the call sign W6DX! AD6B says W6XD gave a talk on S. Africa last year at a Club meeting. And WZO confirms IXN's recollection of W6XD as Art's call sign...Nice to hve you wid us tonight, Fried!! AD6B says hanger #1 was originally slated to remain standing as a landmark, & that hanger #2 was condemned to demolition! LDC discovers he's trying to work simplex wid the offset on (ie., Larry pulled an 'IXN'). He removes the offset and sends booming sigs into ZE's QTH! VDP, LDC & VFC all attend the DeVry Swapmeet, where LDC picks up a Heathkit Cantenna, coax switch, etc. VFC reports a 6m opening yesterday frm 8:30 - 10:30 am, hearing SD, Utah, CO, KS, TX, & MO! UCH checked in at Net's end after attending a school concert where elementary students joined wid the H.S. Band. IXN tnx VPP fer the pix of the Baker-to-Vegas Challenge Cup Relay. A montage of OPs, motel, & equipment now appears in the Club History!

4/30 15m Phone Net - W6ZE/AF6C checks in AD6B, NGO, RND, IXN, and HHC. AF6C sees WOX on the road today. And AD6B wonders how things went at El Mirage last weekend! OPs welcome NGO home frm the hosp., and Kei tells OPs that 'he'll undergo the knife on the cutting board' arnd May 18! RND has a bad case of audio distortion on his sigs, and John can't pull IXN out of the noise, as RND battles minor sinusitis, and plans to fly to Boise in the near future. IXN says the 5.0 & 4.9 mag. shocks between the San Cayatano & Santa Susanna faults may not be aftershocks of the Northridge event. And HHC finds himself living on aspirin, etc., as he recuperates frm a wisdom tooth extraction! (Hm!...Wonder where they ever got that name fer such an aggravating tooth!?) HHC reminds OPs to pay dues if they want to be listed on the Club roster, and, Ken plans to be at the Club bfast Sat.

4/30 2m Phone Net - W6ZE/IXN checks in VFC, RE, AD6B, QW, UCH, VDP, BWH, TWA, & PKB. VFC spends the day wid state adoption people, and, Dennis says computer materials are outranking ham gear at the swapmeet. BWH airs Newsline ... Seems that ARRL wants to take over evidence collecting & preparation for presentation of on-air violations to an FCC judge in an effort to aid FCC with enforcement duties. RE removes dead leaves frm the 'naked ladies' and narcissus bulbs, and Alex says that 1 1/2" 8+ ft long galvanized steel pipe IS YOURS FOR THE ASKING!! AD6B & OPs tnx BWH fer Newsline, and Art visits the LA Airport yesterday as he sends the harmonic off to Fiji QW, bk frm Spokane, briefs OPs on plans fer the new QTH in Spokane. He'll be off to Spokane in 2 or 3 weeks fer some pre-cement work!

# Solar Terrestrial Activity Report

*from the internet.*

Here's an exciting URL that you can get off the net. Use any one of the search engines such as Yahoo or Excite to get to...

**<http://dxlc.com/solar/>**

You'll find a menu of many great items that you can print such as the below samples.

## Forecast

The geomagnetic field is expected to be at quiet to minor storm levels today and quiet to active on the 23rd both due to the current disturbance and the expected coronal hole related disturbance likely to start late today. Quiet to unsettled is expected from the 24th until the beginning of May. Long distance mediumwave propagation along east-west paths is poor at high and upper middle latitudes.

## Active solar regions

Solar no.	Date	Actual no. sunspots	Location at midnight	Area	Classification	Comment
8032	970418		S24W75			Plage
8033	970418		N21W45			Plage
8034	970419		N21W42			Plage
Total number of sunspots:		0				

## Monthly solar data

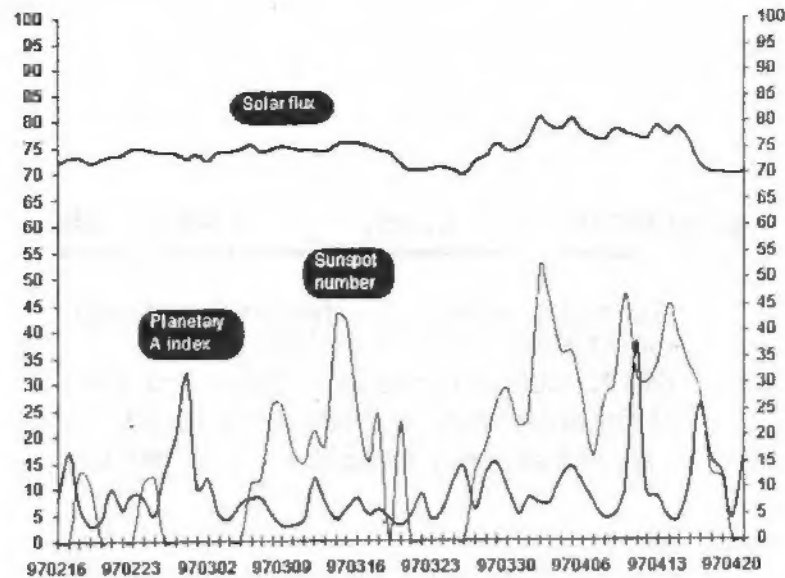
Month	Average solar flux	International sunspot number	Smoothed sunspot number
9605	70.1	5.6	8.1
9606	69.6	11.8	8.6
9607	71.2	8.8	8.5
9608	72.4	14.0	8.4
9609	69.4	1.8	8.5
9610	69.2	1.8	
9611	78.7	18.6	
9612	77.8	12.7	
9701	74.0	6.5	
9702	73.8	7.6	
9703	73.5	8.8	
9704	76.0	20.3	
	(running average)	(unofficial accumulated value)	

## Solar terms and data sources

If you need an explanation of some of the terms used and phenomena described in this report, there are some sources available. Although the [Radio Netherlands' Solar Guide](#) is meant to explain the WWV bulletins, some of the terms are used in the Solar Terrestrial Activity Report as well. A [tutorial on the ionosphere](#) can be found at NOAA's National Geophysical Data Centre. SEC has a  [Primer on the Space Environment](#) with descriptions of the sun and various solar phenomena. They have a [Glossary of Solar-Terrestrial Terms](#) as well.

This address information brought to you by Tech Chairman K6LDC thanks to Bill AA6ZW.

# Solar Terrestrial Activity Report



Last update April 22, 1997 at 0340 UTC.

[\[Recent solar and geomagnetic data \(updated daily\)\]](#)

[\[Solar WIND and electron fluence charts \(updated daily\)\]](#)

[\[Solar cycles 21-23 \(updated April 1, 1997\)\]](#) [\[Solar cycles 1-20\]](#)

## Recent developments

The geomagnetic field was at quiet to minor storm levels on the 21st. Solar wind speed ranged between 371 and 429 km/sec, a solar wind shock front formed during the morning hours and reached its maximum just before 14h UTC. The source of the disturbance is currently unknown.

Solar flux was 70.1 yesterday, the planetary A index was 16 (K index: 1113 4445). The visible sun has been spotless for 2 consecutive days. An active region is approaching the east limb at latitude S25. The background x-ray flux is below the class A1 level.

A recurrent, small, well placed coronal hole was in a geoeffective position the 20th.

Whoops - I almost forgot-----

(See page 9)

& IXN share the same problem in trying to find parts for old toilets!...Try P&M plumbing on W. 17th St. in Santa Ana, Larry! VDP will attend the Club Bfast Sat., and Larry says the ins. co. came thru on the truck repairs. TWA & IXN discuss tomatoes & gardening. And Charles is sending a Ca. Gold video catalogue to IXN. PKB gets an HTX-404 and is now on 440! IXN can hardly wait to go over PKB's geology maps for the So. CA. coast!

# Club Nets

<u>Band</u>	<u>Mode</u>	<u>Day</u>	<u>Local Time</u>	<u>Freq. Mhz.</u>	<u>Net Control</u>
15 Meters	SSB	Wednesday	7:30 P.M.	21.375*	AF6C
2 Meters	FM	Wednesday	8:30 P.M.	146.550 Simplex	WB6IXN

(Listen for W6ZE, Net Control)

\* Plus or Minus QRM

## General Meeting

May 16th  
June 20th  
July 18th

General meeting is the third Friday of each month, 7:30 P.M., at the AMERICAN RED CROSS facilities.  
601 N. Golden Circle Dr. , Santa Ana, CA  
Major cross streets: Fourth Street and Tustin Ave.  
Talk-in frequency 146.550 MHZ. simplex.

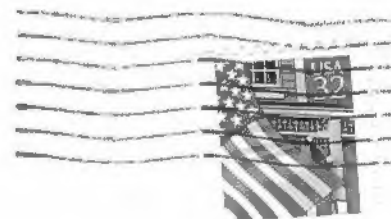
## Board Breakfast

June 7th  
July 5th  
Aug 2nd

Board Meeting is the first Saturday of each month at 8:00 A.M.  
The Wildflower Restaurant - members and visitors are welcome.  
2525 N. Grand Ave., Santa Ana, CA  
Exit the 5 freeway at 17th St., go east to Grand Ave. Go north on Grand; or exit the 22 Freeway at Glassell/Grand. Go south to restaurant.



Orange County Amateur Radio Club, Inc  
P.O. Box 3454  
Tustin, CA 92861



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